Racial Differences in Visit Duration of Outpatient Psychiatric Visits

Mark Olfson, MD, MPH; Donald K. Cherry, MS; Roberto Lewis-Fernández, MD

Context: Substantial racial disparities exist in the delivery of some health care services. Whether racial disparities exist in the duration of office visits to psychiatrists is not known.

Objective: To compare the duration of visits to office-based psychiatrists by white and African American patients.

Design, Setting, and Participants: Analysis of a nationally representative sample of visits to office-based psychiatrists between 2001 and 2006. Visits were grouped by patient race as non-Hispanic African American (n = 504) or non-Hispanic white (n = 7094).

Main Outcome Measure: Duration of face-to-face contact between patient and psychiatrist.

Results: Unadjusted mean duration of psychiatric outpatient visits by African Americans (mean duration, 28.3 minutes) were 4.4 minutes shorter than visits by whites (32.7 minutes) (\(P = .02\)), although the difference narrowed (3.5 minutes; \(P = .07\)) following adjustment for potentially confounding patient, psychiatrist, and practice characteristics. A gap was evident in 2001-2003 (7.4 minutes; \(P < .001\)) but negligible in 2004-2006 (0.1 minute; \(P = .94\)). In stratified regressions that combined time periods and controlled for several relevant characteristics, significant racial differences in visit duration were observed among visits with the following characteristics: adjustment disorder diagnosis (10.0 minutes; \(P < .001\)), female patient sex (5.4 minutes; \(P = .008\)), depressive disorder diagnosis (5.2 minutes; \(P = .04\)), solo practice (5.2 minutes; \(P = .04\)), psychotherapy provision (5.1 minutes; \(P = .01\)), practices with high patient volume (5.0 minutes; \(P = .03\)), Medicare payment (3.5 minutes; \(P = .02\)), and absence of psychiatric comorbidity (3.3 minutes; \(P = .04\)).

Conclusions: In recent years, progress has been made in closing a racial gap in the length of psychiatric office-based outpatient visits by African American vs white patients. Against a backdrop of persisting racial disparities in other areas of mental health care, ongoing attention to reducing disparities will be necessary to sustain and extend these gains.

Arch Gen Psychiatry. 2009;66(2):214-221

©2009 American Medical Association. All rights reserved.
care received by African American patients lags behind the care received by white patients. The racial disparities in health care may emerge directly from the clinical encounter. Compared with white patients, African American patients tend to report greater distrust of their physicians. The care received during the clinical encounter may contribute to these perceptions because the level of distrust has been found to rise rather than decline on previsit and postvisit assessments. The quality of physician-patient communication has been identified as contributing to patient perceptions of care. Compared with white patients, African American patients rate their experiences with physicians as significantly worse on measures of communication, patient-centeredness, and participatory decision-making style.

Among the medical specialties, psychiatry is the most time intensive. To make sense of the patient’s distress, provide psychotherapy, and monitor clinical progress, psychiatrists engage in a time-consuming process of questioning, listening, and interacting with their patients. In general, less time with patients tends to lower patient perceptions of rapport, trust, satisfaction, and a sense of participation in decision making. For these reasons, it is not unreasonable to assume that psychiatric visit duration is related to quality of care. However, we are aware of no research directly linking visit duration to clinical outcomes. Previous research indicates that the amount of time a psychiatrist spends with each patient varies as a function of diagnostic, financial, practice, and other patient characteristics.

Scant data exist on relationships between patient race and duration of the medical visit. In one study, racial concordance of patients and physicians for African Americans and whites resulted in medical visits that were 2.2 minutes longer than race-discordant relationships, although visit duration was not compared across racial groups. Assessments of racial patterns in patient satisfaction that include the amount of time physicians spend during visits have yielded mixed results.

In the present study, we compare the amount of time that office-based psychiatrists spend with non-Hispanic African American and non-Hispanic white patients. Because racial groups may vary with respect to patient, physician, and setting characteristics that may influence visit duration, we seek to control for these effects.

**METHODS**

**SOURCE OF DATA**

Data were drawn from the 2001-2006 National Ambulatory Medical Care Survey (NAMCS). The NAMCS is a probability sample survey of office-based physicians in the United States conducted by the Centers for Disease Control and Prevention’s National Center for Health Statistics. A report describing sample design, sampling variance, and estimation procedures of the NAMCS has been published. The NAMCS uses a 3-stage probability sampling procedure: the first stage contains 112 geographic primary sampling units, the second stage consists of a probability sample of practicing, nonfederally employed physicians (excluding those in the specialties of anesthesiology, radiology, and pathology) selected from the master files maintained by the American Medical Association and the American Osteopathic Association, and the third stage involves selecting patient visits to the sample physicians during a randomly assigned 1-week reporting period in that year.

For the survey years 2001-2006, the weighted response rates for sampled psychiatrists ranged from 59% to 68%. The annual unweighted number of in-scope sampled psychiatrists ranged from 133 in 2001 to 176 in 2004. Physicians were instructed to fill out a patient record form for each sampled visit. The number of forms completed each year by respondent psychiatrists ranged from 1469 in 2003 to 1896 in 2004. A total of 7094 office visits were made by white patients, and 504 visits were made by African American patients.

**VARIABLES**

The patient response form was used to identify several patient characteristics. Specifically, items used in the present analyses include visit year (2001-2006), patient age (1-17, 18-35, 36-54, and ≥55 years), sex, and race by physician report. Type of expected payment for the visit was grouped into 5 mutually exclusive, hierarchically organized categories: private insurance, Medicare, Medicaid, self-pay, and a residual group of “other” sources including worker’s compensation, no charge, other, and unknown sources. Clinical patient characteristics included whether psychotherapy was provided and whether medications were ordered, supplied, administered, or continued during the visit (medication visit). The sole continuity of care factor included whether the patient was new or whether he or she had visited the practice in the previous 12 months (established patient). Primary diagnoses were made according to the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) and selected mental disorders were considered as diagnostic groups. These included depressive disorders (296.2, 296.3, 300.4, and 311), anxiety disorders (300.0-300.3), bipolar disorder (296.0, 296.1, and 296.4-296.9), schizophrenia and related disorders (295, 297-299, and 780.1), adjustment disorders (308-309), and a collective group for all other mental disorders (290-319, except those codes already mentioned). Mental disorder comorbidity was defined by the diagnosis of 2 or more different mental disorders in one visit.

Two psychiatrist/practice factors were collected on a separate physician induction interview form and included practice type and volume. Specifically, practice type was categorized as either solo or not solo based on whether there were other physicians associated with the practice, while volume was defined by number of visits to the office in the physician’s last complete week of practice, stratified into the following categories: 0-24, 25-34, 35-44, and 45 or higher. Other physician information obtained during sample selection such as psychiatrist age (≤40, 41-54, and ≥55 years), sex, and race was also analyzed. Psychiatrists were classified by self-report into 4 mutually exclusive racial groups: white, African American, Asian, or other/unknown, which included Native Hawaiian, other Pacific Islander, American Indian, Alaskan Native, and all cases in which no race was reported. The location of the visit was classified with respect to metropolitan status (urban or rural) based on actual primary office location in conjunction with the definition of the Bureau of the Census and the US Office of Management and Budget. The following visits were excluded from all analyses: visits to physicians other than psychiatrists, patients younger than 1 year, patients of Hispanic origin, and patients whose race was anything other than white or African American. The dependent variable was the total number of minutes spent in face-to-face contact with the psychiatrist (visit duration).
Results are presented in minutes as regression coefficients (P values considered significant at <.05 (2-tailed)). Visits in which no time was spent with the psychiatrist (n=165) were also excluded from the analyses.

### Analytic Strategy

The National Center for Health Statistics weights each NAMCS visit to correct for sampling imperfections, and the weight includes 4 components relating to selection probability, nonresponse adjustment, physician-population weighting ratio adjustment, and weight smoothing. Reported means are based on weighted estimates.

A t test was used to compare the difference in mean duration of psychiatric visits by African American and white patients. For each patient, psychiatrist, and practice variable stratum of interest, we used a separate stepwise multivariate linear regression analysis to measure the effect of patient race on visit duration. Patient race was first forced into each model and all patient, psychiatrist, and practice covariates were then sequentially considered with specified entry criterion. Results of the regression analysis were then sequentially considered with specified entry (P < .15) and retention (P < .05) criteria.

### Results

#### Patient Characteristics

The unadjusted mean duration of psychiatric outpatient visits by African American patients was 4.4 minutes shorter than that of white patients and 3.5 minutes shorter after controlling for relevant covariates. An unadjusted racial difference in visit duration was evident in the earlier study period (2001-2003) (P < .001) but not the later period (2004-2006) (P = .94). Post hoc analyses revealed a significant interaction between study period and patient race on visit duration (P = .01). The strength of the association between this interaction term and visit duration was not reduced when psychotherapy (P = .008), a psychotherapy-by-race interaction term (P = .004), medication visit (P = .008), or a medication visit-by-race interaction term (P = .007) was added to separate models (data not shown). This suggests that the period effect on the racial difference in visit duration was not mediated by psychotherapy, use of medication, or changes in these variables.

In stratified univariate analyses, significant differences in visit length between African American and white patients were observed for older patients (36-54 and ≥55 years), women, and patients with Medicare as the primary expected source of payment. After controlling for relevant patient, psychiatrist, and practice characteristics, the only strata in which there were significant racial differences in visit length were female patient sex and Medicare payment (Table 1). In post hoc analyses limited to 2004-2006 visits, significant reductions in minutes for African American patients were only evident for visits in which Medicare was the primary expected source of payment (P = .03) and in low-volume practices (P = .003). However, a significant visit duration increase for African American patients compared with white patients was observed when psychotherapy was not provided (P = .03) (data not shown).
Significant univariate racial differences in visit duration were also observed for established patients, patients who received medications or psychotherapy, patients diagnosed as having depression or adjustment disorder, and patients who were not diagnosed with 2 or more mental disorders (Table 2). After controlling for the covariates, associations between patient race and visit duration remained significant for each of these strata, except for established visit status and for visits that included medication mentions.

**PSYCHIATRIST AND PRACTICE CHARACTERISTICS**

In the unadjusted analysis, significant racial variations in visit duration were evident for visits provided by psychiatrists who were male, aged 55 years or older, practiced in urban settings, engaged in solo practice, had fewer than 35 or more than 44 visits per week, and were of other/unknown race (Table 3). In the adjusted analyses, significant racial differences in visit duration remained only for visits by psychiatrists who were in solo practice, had more than 44 visits per week, and who were of other/unknown race.

**COMMENT**

In the United States from 2001-2006, office-based psychiatric visits by African American patients were, on average, 4.4 minutes shorter than visits by white patients. This difference was reduced to 3.5 minutes after accounting for a range of potential confounds. The racial gap in visit duration was confined almost entirely to 2001-2003 rather than to 2004-2006. Between these periods, there was an increase in the mean duration of visits by African Americans rather than a meaningful decline in the duration of visits by white Americans. Post hoc analyses suggest that the convergence in racial visit duration was not mediated by the pattern of psychotherapy or medication visits.

The increase in duration of visits by African American patients exists within a broader context of persisting African-American–white disparities in access and quality of mental health care. However, the social distance adult white Americans report from African Americans has declined steadily since 2000. The social distance adult white Americans report from African Americans has declined steadily since 2000. However, the social distance adult white Americans report from African Americans has declined steadily since 2000. However, the social distance adult white Americans report from African Americans has declined steadily since 2000. However, the social distance adult white Americans report from African Americans has declined steadily since 2000. However, the social distance adult white Americans report from African Americans has declined steadily since 2000. The social distance adult white Americans report from African Americans has declined steadily since 2000.
ample, one study found that although visit duration varied significantly by insurance type, this difference was owing to differences across practices with different insurance mixes, whereas duration was constant across patients within a practice. In other health care contexts, a larger proportion of the variance in racial disparities in health care quality has been attributed to within rather than between physician or practice effects. Because of the limited number of sampled visits from individual psychiatrists, it is unfortunately not possible to distinguish these 2 possible general sources of observed racial visit variation.

Until recently, some patient groups have been vulnerable to significant racial differences in visit length. African American women tended to have significantly shorter visits than white women. Compared with white women, African American women have long been known to have lower probabilities and amounts of mental health service use, even after controlling for insurance status and several other factors. In one large sample of depressed low-income women, African American compared with white women were significantly more likely to report stigma-related barriers to mental health treatment and were less likely to want mental health services. Whether race-based differences in patient acceptance of care contributed to the observed differences in visit duration or other cultural, sex-related, and mental health professional considerations account for the gap in the visit length cannot be determined from the present study.

A significant race-related difference in visit duration was evident among visits financed by Medicare but not other sources of payment. Among Medicare beneficiaries, African Americans are 2 or 3 times less likely than white Americans to have private supplemental insurance that covers charges above Medicare-approved amounts. Psychiatrists treating patients with supplemental policies, regardless of patient race, may tend to provide longer visits. Without access to information on supplemental policies, it is not possible to examine the effect of these reimbursement considerations on the observed racial differences in visit duration. In this regard, it is noteworthy that a racial difference in visit length for Medicare visits was also observed in the recent time period (2003-2006).

White patients with a primary diagnosis of adjustment disorder and those without mental disorder comorbidities (2 groups with relatively low levels of illness severity) received significantly longer visits than their African American counterparts. One possible explanation for this pattern is a tendency for physicians to select patients whom they perceive as having adaptive psychological functioning for time-intensive psychological treatments combined with stereotyping of their patients from different cultural backgrounds as having less stable mental functioning.
Visits with psychotherapy provided to African American patients were, on average, 9.0 minutes shorter than those provided to white patients. Although white patients who received psychotherapy had visits that averaged 12.0 minutes longer than their white counterparts who did not receive psychotherapy, a comparable difference of only 1.6 minutes was observed for African American patients. Visits coded as psychotherapy cover a wide range of counseling strategies from brief supportive encounters to more time-intensive structured approaches such as cognitive-behavioral therapy. The broad diversity of treatment practices considered psychotherapy may inadvertently have provided room for unequal clinical attention across races. For mental disorders, such as adjustment disorder and to a lesser extent depression, that are frequently treated with psychotherapy, racial differences in mean visit duration were particularly pronounced.

Improving depression care is widely viewed as a leading public health priority. Assessments of racial differences in the quality of depression care have tended to focus on community samples or primary care patients, rather than psychiatric patients. In these settings, clinical recognition of depression as well as initiation and continuity of antidepressant medications tends to be lower among African American than white patients. After controlling for relevant potential clinical confounds, office-based psychiatric visits for depressed African Americans were approximately 5 minutes shorter than such visits for depressed white Americans.

Racial differences in visit duration were evident among visits provided by psychiatrists in solo practice, but not among visits provided by other psychiatrists. Clinical conditions common in solo practice, such as high levels of professional autonomy and limited exposure to group practice norms and peer interactions, may play a role. As discussed previously, it is also possible that practice patterns such as mean duration of visits vary more significantly among solo practitioners than among other practices and that solo practitioners with a higher fraction of African American patients have lower mean visit duration, irrespective of race, compared with others.

The visit duration of African American and white patients did not significantly vary among visits to white or Asian psychiatrists, but it did significantly vary among visits to psychiatrists in the poorly characterized other/unknown racial group. Most of the visits (84.0%) to this group were provided by physicians who did not report their race. Similarly, there were an insufficient number of visits to African American psychiatrists to assess this important issue. Previous research on physician race and the quality of mental health care has yielded mixed results. In one study, for example, white primary care physicians were twice as likely as African American physicians to diagnose depression, whereas another study did not find that the race of the physician influenced the detection of depression. Race concordance between African American patients and physicians has been associated with higher quality care in several, but not all, studies.

In unadjusted analyses, the racial difference in visit duration was most pronounced in low-volume, rather than high-volume, practices. However, only high-volume practices were independently associated with shorter visits to African Americans in the multivariate analyses. In the low-volume practices, several correlated factors including psychotherapy and treatment of depression and adjustment disorders may account for the discrepancy between the univariate and multivariate findings. The clinical characteristics of high-volume practices that contributed to racial differences in visit duration are not known.

This study has several limitations. First, the effects of shorter psychiatric visits on mental health outcomes are not known, and cross-sectional surveys do not afford opportunities to assess outcome. Second, concern has been raised about the validity of physician-reported estimates of visit duration. Although direct observation of visit duration would likely yield more precise visit duration data, we have no reason to believe that physician reporting differentially affected recording of visit duration by patient race. Third, because there were relatively few visits to African American psychiatrists, it was not possible to examine race concordance for African American patients. One recent study unexpectedly reported that depression assessments are less likely to occur in racially discordant vs racially discordant patient-physician dyads. Fourth, the NAMCS records numbers of visits rather than individual patients, and the number of duplicated data for individual patients is unknown. Fifth, although we controlled for several sources of variation in visit duration, other more subtle, unmeasured factors, such as variation of illness severity within diagnostic groups, or demand characteristics, such as race-related preferences in visit duration, may confound the racial comparisons and bias the adjusted estimated racial difference in visit duration. Sixth, the diagnoses are based on physician judgments that are not subject to expert validation, and misdiagnoses may be differentially distributed across the patient race groups. Last, the surveys do not include mental health care provided by nonpsychiatrist health care professionals and include few visits to settings not classified as office based, such as community health centers, clinics, health maintenance organizations, faculty practice plans, and mental health centers. African Americans are more likely than white Americans to receive mental health care from nonphysicians outside of specialized mental health settings, where different factors may influence visit duration.

In recent years, progress appears to have been made in eradicating racial differences in the time office-based psychiatrists spend with patients. However, only a few years ago, shorter visits for African American patients were evident, especially among women, those receiving psychotherapy, those treated for depression, and those receiving care in high-volume and solo practices. These gains exist within a broader context of persisting African American–white disparities in access and quality of mental health care. Looking ahead, it will be important to monitor closely this aspect of psychiatric practice to help ensure that recently achieved progress toward racial equality is sustained.

Submitted for Publication: February 4, 2008; final revision received July 25, 2008; accepted September 3, 2008.


